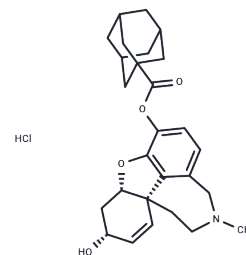


P11149

Chemical Properties

CAS No. : 164724-79-2
 Formula: C₂₇H₃₄ClNO₄
 Molecular Weight: 472.02
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	P11149, a derivative of Galanthamine, acts as a competitive, orally active, and selective AChE inhibitor with the ability to weakly penetrate the blood-brain barrier (BBB). It demonstrates selective inhibition, exhibiting an IC ₅₀ of 1.3 μM for rat BChE/AChE, and shows central cholinergic activity, behavioral efficacy, and safety. P11149 is utilized in Alzheimer's disease research[1].
Targets(IC ₅₀)	Others,Cholinesterase (ChE)
In vivo	P11149 is a GAL analog that, upon rapid in vivo hydrolyzation, produces 6-DMG, a potent AChE inhibitor. It demonstrates superior subcutaneous (s.c.) bioavailability compared to oral (p.o.) administration. In mice, oral doses of P11149 induce salivation (Sal), lacrimation (Lac), and tremors at levels comparable to those observed in rats. Notably, 6-DMG, P1 1012, and GAL trigger Sal and Lac at lower doses in rats. Moreover, P11149 has a half-life (T _{1/2} (el)) of 2.4 hours and reaches a maximum concentration (C _{max}) of 585 ng/mL in rat plasma.

Solubility Information

Solubility	DMSO: 100 mg/mL (211.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 5 mg/mL (10.59 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1186 mL	10.5928 mL	21.1855 mL
5 mM	0.4237 mL	2.1186 mL	4.2371 mL
10 mM	0.2119 mL	1.0593 mL	2.1186 mL
50 mM	0.0424 mL	0.2119 mL	0.4237 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

G M Bores, et al. Pharmacological evaluation of novel Alzheimer's disease therapeutics: acetylcholinesterase inhibitors related to galanthamine. J Pharmacol Exp Ther. 1996 May;277(2):728-38.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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